DUDLEY KNOX LIBRARY
NAVAL POSTGRADUATE SCHOOL
MONTEREY CALIFORNIA 93943 5002

THE

GEORGE WASHINGTON UNIVERSITY

NAVY GRADUATE COMPTROLLERSHIP PROGRAM

FINANCIAL AND LOGISTIC SUPPORT

of

MARINE CORPS AVIATION

By

Paul M. Ruffner
Major, U. S. Marine Corps

For

Dr. A. Rex Johnson

January, 1956

TABLE OF CONTENTS

Page

INTRODUCTION 1

Chapter

I. A DUAL LOGISTIC SUPPORT SYSTEM 3

History
Organizational Relationships
Agency Responsibilities

II. OPERATION OF THE DUAL SUPPORT SYSTEM 13

Marine Corps Budgeted Support
Bureau of Aeronautics Support
Other Agency Support

III. MARINE AVIATION AND PROGRAM BUDGETING 32

Description of Program Budgeting
Obstacles to Strict Conformance

IV. SUMMARY 35

INTRODUCTION

The United States Marine Corps contains an air force which in size and quality ranks very favorably with those of many of the world's major nations. Composed of three aircraft wing organizations, Marine Aviation today is capable of affording hundreds of planes in support of Marine infantry divisions during an amphibious assault both from aircraft carriers of the Navy and from land bases established in forward areas. In World War II this aviation organization was composed of five wings containing one hundred forty-five squadrons with a peak personnel complement in 1945 of 119,000 men and women.[1]

Due to the fact that the Marine Corps is considered a separate military service of the United States, it is an anomaly to many that the financial and logistic support of its substantial aviation force is largely provided from sources outside the Marine Corps.

Observers of "program" or "performance" budgeting, who are aware of the significance now attached to the principles of organization for financial management in the Department of Defense, may well wonder at the operation of Marine aviation which is actually under the financial and technical management of two different military services, the Navy and the Marine Corps. The author has been unable to find any one publication or set of data which explains just how this dual support system operates or how it came into existence.

---

[1]Robert Sherrod, History of Marine Corps Aviation in World War II, (Washington, D. C.: The Combat Forces Press, 1952) p. 435

In view of the importance of Marine aviation as a tactical air force within the Department of the Navy it would appear worthwhile to determine its sources of funds and supplies, its logistic relationships with offices and bureaus of the Navy and Marine Corps, and the degree of its participation in financial management programs. That is the purpose of this paper.

Since the author is a Marine aviator with some experience in the operation of the systems described in these chapters some allowance should be made for his expressions of opinion which admittedly cannot be totally objective. In recognition of a possible tendency toward bias the writer's statements in judgment of existing organizations, philosophies or practices will be kept at a minimum. Three years of recent experience on the staff of the Director of Marine Corps Aviation has been used as a basis of reference for many of the descriptions of the logistic activities carried on in the Division of Aviation, Headquarters Marine Corps except in those cases where credit is acknowledged. There is a dearth of written material on this subject.

CHAPTER I

A DUAL LOGISTIC SUPPORT SYSTEM

The Secretary of Defense, in accordance with the provisions of the National Security Act of 1947, has promulgated a statement of functions of the nation's armed forces which in effect contains current statuatory and administrative recognition of the aviation component of the Marine Corps. One of the primary functions assigned to the Navy Department is:

> to maintain the United States Marine Corps, which shall include land combat and service forces and such aviation as may be organic therein. Its specific functions are:
>
> (a) To provide Fleet Marine Forces of combined arms, together with supporting air components for service with the Fleet in the seizure as defense of advanced naval bases.[1]

Historically, because of its peculiar function, the Marine Corps as a separate military service within the Department of the Navy, has been permitted to operate its own logistic support agency and has been financed from Congressional appropriations specified for its use. However, we find the Marine air arm supported directly not only by Marine Corps agencies but by many of the technical bureaus of the Navy, most particularly by the Bureau of Aeronautics. This dual support of Marine Aviation has existed during its history and has functioned to the evident satisfaction of both the admirals of the Navy and generals of the Marine Corps

---

[1] Functions Of The Armed Forces And The Joint Chiefs Of Staff, (Office of the Secretary of Defense, Washington, D. C.: January 1954) p. 9 (underlining by author)

since no effort has ever been made to sever the logistic relationship. A short review of the history of Marine Aviation may serve to explain in some measure just how this dual support system was developed.

History

In the early days of military aviation (1911) Marine Corps participation consisted of the individual actions on the part of a handful of Marine officers who at first were identified only with the formation of the Navy flying service. Lieutenants Alfred A. Cunningham and Bernard L. Smith, the first and second Marine flyers, were designated as naval aviators No. 5 and No. 6. This was the beginning of the close association of Marine and Navy aviation which exists to this day. Initially Conningham and Smith participated in an aviation program purely naval in character which was definitely not predicated on the planned support of Marine ground forces. Aircraft in the Navy of those days were thought of by their proponents as adjuncts to the ships at sea to be developed for naval battles only. By 1914, however, Marine Corps interest in aircraft had persuaded the Chief of Naval Operations to designate a separate Marine aviation unit under command of Lieutenant Smith as a "Marine Section of the Navy Flying School."[1] However, in this year Marine aviators were still in fact only Navy aviators in different uniforms. No operational mission had as yet been assigned a

---

[1]Sherrod, op. cit., p. 4

[illegible]

[illegible]

[illegible]

Marine aviation unit, nor was any real differentiation established at the many appropriation hearings and in discussions as to the funding of costs of Naval aviation at that time. Very gradually increasing recognition was accorded. In 1915 the Navy General Board accepted the concept of an air unit operating with Marine ground forces, and at the end of that year the Major General Commandant stated in a report that "by direction of the Navy Department a Marine Corps aviation company consisting of 10 officers and 40 enlisted men" was to be organized.[1]

During World War I Marine aviation expanded pell mell but only to a total of 282 officers and 1924 men.[2] Pilots were trained at Navy flight schools and planes, spare parts and equipment came from a variety of sources. These included Navy, Marine Corps, Army and allied nation logistic support agencies. It is to be noted that at the war's beginning, pay for personnel of the Marine Corps Reserve Flying Corps was provided in the Naval Appropriations Act of 29 August 1916.[3] No Marine Corps funds for separate provisioning of aeronautical equipment were mentioned however. This early statuatory recognition of Marine aviation indicated acceptance by the Congress at that time of a system whereby Navy agencies funded a portion of Marine aviation's requirements and the Marine Corps the remainder.

---

[1]Captain Edna Loftus Smith, USMCWR, Aviation Organization in the United States Marine Corps, 1912-1945, (monograph prepared for DCNO (Air) p. 2

[2]Sherrod, op. cit., p. 22

[3]Ibid, p. 6

[illegible]

[illegible], p. 2.

Between the two major wars the Corps' air strength was reduced to a minimum. In 1921 there were only 43 active pilots and by 1929 only one hundred. Significantly though, it was in this period that Marine aviation was to identify itself permanently as a member of the Marine Corps Air-Ground Team. Few as the squadrons, planes and pilots may have been, they were all used consistently in coordination with Marine ground forces as an instrument of national policy in Santo Domingo, Haiti, Nicaragua, China and in the islands of the Pacific.

Although Marine Aviation operational assignments such as support of foot troops in the jungles of Nicaragua marked a wide divergence from the formerly pursued naval tasks of spotting for battleships etc., logistic support procedures did not vary. By 1939 the Navy's General Board had formally drafted Marine aviation's mission:

> Marine aviation is to be equipped, organized and trained primarily for the support of the Fleet Marine Force in landing operations and in support of troop activities in the field; and secondarily as replacement squadrons for carrier-based naval aircraft.[1]

Previously, in June 1935, aviation was taken from the Division of Operations and Training at Headquarters Marine Corps and established as an independent section under the Major General Commandant. The former Officer-in-Charge became Director of Marine Corps Aviation which acquired full division status.[2] Neither of these actions, though recognizing the increased importance of Marine Air, indicated a desire for basic change in the then current logistic support procedures and such condition has

---

[1]Memo Major General Field Harris to SecNav 8 April 1946, serial AA213. (Original 1939 document not found)

[2]Headquarters Marine Corps memo 1165 AD-37-kk, 5 June 1935, Status of Aviation Section.

[illegible]

[illegible]

[illegible]

obtained thru the cyclic expansions and contractions of Marine Aviation during and after World War II, the Korean war, and to the present day.

This history indicates that two major influences have worked to establish this system of dual financial and logistic support which now exists. The first of these is the historic comradeship that has existed between flying officers of the Navy and Marine Corps which was engendered from aviation's beginning by common training methods with common equipment. Secondly, the relatively minute size of Marine aviation organizations until the late 1930's, hardly permitted consideration of the establishment of an aviation supply system within the Marine Corps, particularly in view of the fact that Navy sources would have opposed such a move as duplicative of their functions.

Organizational Relationships

In examining the dual structure which finances and supplies Marine aviation, it would appear appropriate to look briefly at some organizational relationships within the Department of the Navy which are pertinent to the subject at hand.

First it is necessary to clarify the status of the Marine Corps as a military service within the Department of the Navy. This is perhaps best expressed by quoting in part the responsibilities of the Commandant of the Marine Corps as defined by the Secretary of the Navy:

> The Commandant of the Marine Corps is the senior officer of the United States Marine Corps. He commands the Marine Corps and is directly responsible to the Secretary of the Navy for its administration, discipline, internal organization, unit training, requirements,

> efficiency, and readiness, and for the total performance of the Marine Corps. When performing these functions, the Commandant of the Marine Corps is not a part of the permanent command structure of the Chief of Naval Operations.[1]

Although on its face this statement would indicate complete independence of the Marine Corps from Navy command or influence except at civilian secretary level, such is certainly not the case. As shall be seen, close cooperation between Navy and Marine Corps, particularly for aviation matters, exists at all parallel levels of both military command and administrative or technical management organization.

A most significant example of such cooperation is seen in the organization and functions of the Division of Aviation, Headquarters Marine Corps. This unit is headed by the Assistant Commandant of the Marine Corps for Air who is also designated as an Assistant Chief of Naval Operations. So in addition to being the senior Marine aviator this officer and his staff are appointed to:

> assist the Deputy Chief of Naval Operations (Air) to insure that Marine aviation plans and programs are in all respects adequate.....and to act as principal adviser to DCNO(Air) in all matters pertaining to Marine aviation.[2]

As noted on the first page of this chapter it is a function of the Navy to maintain Marine Corps aviation forces. By organization it has become the responsibility of this Deputy Chief of Naval Operations (Air) to insure such maintenance in addition to his task of overseeing Naval aviation. He is, then, aided in meeting his responsibilities by a

---

[1]Department of the Navy General Order No. 5, Assignment and Distribution of Aurhority and Responsibility for the Administration of the Department of the Navy, (Washington, D. C., 20 November 1954.

[2]Organization Manual, Part I, Office of the Chief of Naval Operations (OPNAV INSTRUCTION 5430.2A, Washington, D. C., December 1954)

[illegible] the [illegible] of the Army [illegible] of the Army [illegible] of the Army

Marine Corps aviation general officer who is also a senior staff aide to the Commandant of the Marine Corps.

Since this close and cooperative relationship between the respective heads of Marine and Navy aviation exists at the top echelon of command and responsibility, it is to be expected that the situation is copied at lower levels. Such is the case. For example; Marine commanders of air bases exercise authority emanating from both the Navy technical bureaus and from the Commandant of the Marine Corps. In the fleets of the Navy, Fleet Marine Force aircraft commanders have dual responsibilities to the Navy fleet commander and to the Marine Corps chain of command. A similar situation exists in the air reserve command structure. Also, for pilot and technical training purposes, experienced Marine aviators and enlisted instructors are detailed to Navy training commands to perform duties identical to those of their Navy contemporaries. These command relationships complement a dual logistic support system and would appear to aid its satisfactory performance.

Agency Responsibilities

Before investigating detailed procedures concerning how Marine aviation obtains logistic support, it is important that regulations be indicated which define the line of division of such support responsibility between Navy and Marine Corps agencies. Since the Bureau of Aeronautics of the Navy and the Supply Department of the Marine Corps provide the majority of services, attention will be confined to these organizations.

United States Navy Regulations issued by the Secretary of the Navy with the approval of the President lists, among others, four duties of the Commandant of the Marine Corps of a logistic nature which are pertinent:

> 8. Procurement, warehousing, distribution, shipment, issue sale of all equipment, material, and supplies for the Marine Corps, except items specifically assigned for control to a bureau or office of the Navy Department by the Secretary of the Navy.
>
> 9. Procurement and administration of all services required by the Marine Corps, except those assigned for control to a bureau or office of the Navy Department by the Secretary of the Navy.
>
> 10. Upkeep and repair of quarters and other facilities utilized by Marine Corps organizations for which no other activity of the Department of the Navy has been assigned the responsibility.
>
> 11. Payment, out of the proper appropriations made by the Congress for the Marine Corps, of all the expenses of the Marine Corps chargeable to such appropriations.[1]

This same authority charges the Quartermaster General of the Marine Corps, as head of the Supply Department, with responsibility for carrying out the above functions as the Commandant may direct.

It will be noted from the quoted reference that although the Marine Corps is given wide latitude in its ability to provide its own procurement and administration of logistic services, a specific distinction is made concerning functions which are assigned for control to a bureau or office of the Navy Department by the Secretary of the Navy. This is significant because, as will be seen presently, many of these functions are in fact assigned to Navy organizations, particularly where they effect Marine aviation.

---

[1] U. S. Navy Regulations, The Secretary of the Navy, (Government Printing Office, Washington, D. C., 1948) p. 32

[illegible] Corps [illegible] be the [illegible] of the
[illegible] the approval of the President [illegible] naval [illegible], that duties
of the Commandant of the Marine Corps of a [illegible] [illegible] nature
[illegible]:

1. Procurement, [illegible], distribution, alignment, issue
sale of all equipment, materiel, and supplies for the Marine Corps,
except items specifically assigned for control to a bureau or office
of the Navy Department by the Secretary of the Navy.

2. Procurement and construction of all services required
by the Marine Corps, except those assigned for control to a bureau
or office of the Navy Department by the Secretary of the Navy.

10. Upkeep and repair of quarters and other facilities
utilized by Marine Corps organizations for which no other activity
of the Department of the Navy can be assigned the responsibility.

11. Reports, each of the types enumerated, made by the
Commandant for the Marine Corps, of all the expenses of the Marine
Corps chargeable to each appropriation.[1]

This [illegible] directs the [illegible] control of the Marine Corps
as head of the Navy Department, with responsibility for carrying out
[illegible] duties [illegible] the Commandant may direct.

It will be noted from the quoted reference that although the
Marine Corps is given some facilities in its ability to provide its own
procurement and administrative or logistic services, a specific distinc-
tion is made concerning functions which are assigned for control to a
bureau or office of the Navy Department by the Secretary of the Navy.
This is [illegible] because, as will be seen presently, many of these
functions are in fact exercised by Navy organizations, particularly where
they affect Marine aviation.

---

[1] U. S. Navy Regulations. The Secretary of the Navy (Government
Printing Office, Washington, D. C., 1948) p. 32

The line of division of responsibilities between Marine and Navy agencies for support of Marine aviation is probably most clearly established by comparing the duties of the Bureau of Aeronautics with those of the Commandant of the Marine Corps while keeping in mind the exceptions to the Commandant's functions noted above. United States Navy Regulations state:

> The Bureau of Aeronautics shall be responsible for the following, except as otherwise prescribed in these regulations or by the Secretary of the Navy:
>
> The design, development, procurement, production, test, fitting out, maintenance, alteration, repair, and material effectiveness of all Navy and Marine Corps aircraft (heavier-than-air, and pilotless), including components and equipment thereof, and photographic and aerological; the research therein; and all pertinent functions relating thereto;
>
> and also that
>
> "The Bureau of Aeronautics shall excercise management control of those commands and organizations established as separate activities of the shore establishment whose primary functions are:
>
> 1. Research in, and development, test, production, inspection, overhaul, modification, and operation of Navy and Marine Corps aircraft.[1]

It appears then, by comparison, that the Navy Bureau of Aeronautics is responsible for the finance and supply of all aeronautical services and related functions to Marine aviation while the Marine Corps has a unilateral responsibility for any remaining logistic support.

The Bureau of Aeronautics has further presented a more detailed interpretation of its responsibilities in this direction approved by the Secretary of the Navy. In this Manual, which consists of general

---

[1] U. S. Navy Regulations, Ibid, p. 39 (underlinings by author)

policy information and instructions in elaboration of guidance contained in the United States Navy Regulations, may be found several references to specific areas of Marine aviation support. For example:

> The Naval Aeronautical Shore Establishment is the sum of all installations. . .which the Secretary of the Navy has assigned to the Bureau of Aeronautics. . .these installations include all Naval and Marine Corps air stations. . . .
>
> (a) Funds for the support of aviation activities of the Marine Corps both ashore and afloat, are provided by Congress as part of the appropriation, "Aircraft and Facilities, Navy." Marine aviation activities are granted allotments and project orders by the Bureau of Aeronautics on the same basis and in the same manner as Navy aviation activities.
>
> (b) All of the fiscal policies and procedures presented in the preceding sections of this chapter are applicable to both Navy and Marine aviation shore establishments and forces afloat.[1]

The above indicates a basis of administrative authority and a recognition of responsibility on the part of the service agencies which back up Marine aviation with two separate supply channels.

Having established the existence of this dual support system, the historical base upon which it grew, and its general authority and responsibilities, it seems best to next inquire into its specific operations.

---

[1] Bureau of Aeronautics Manual, Department of the Navy, (Washington, D. C., 1950) pp. 9 and 68

CHAPTER II

OPERATION OF THE DUAL SUPPORT SYSTEM

The Marine Corps provides funds, on a unilateral basis, in three broad areas for support of its aviation forces. It furnishes the pay and allowances, subsistence, movements, etc., of personnel; it finances the procurement of camp equipment, clothing, small arms, and organizational equipment required to perform purely Marine Corps administrative functions; and it funds the purchase of ground based electronics equipment used by aircraft, Fleet Marine Force units in training and in combat. These are functions not associated with support of aircraft, the responsibility for which is assigned to the Navy Bureau of Aeronautics. An examination of the part which Marine Aviation plays in the formulation and execution of a Marine Corps budget should point up how these three funding tasks are accomplished. A subsequent description of how a Bureau of Aeronautics budget is processed will permit a comparison.

Marine Corps Budgeted Support

Except for a relatively minor Marine Air Reserve personnel program, the Division of Aviation at Headquarters Marine Corps does not directly enter dollar costs into preparation of estimates for the Marine Corps budget. However, operational requirements and basic backup data are required from the Director of this division in such

Chapter II

Operation of the Fall Carnival [Title]

The Marine Corps Marching Band, on a no-income basis, is [illegible] the support of its activities [illegible]. It furnishes the men and silverware, table linens, glassware, etc., as necessary. It finances the procurement of camp equipment, clothing, medical aid, and organizational equipment necessary to maintain nearly twenty Corps maintenance functions, and it funds the purchase of ground items electronic equipment used by individuals. Fixed costs range quite [illegible] and is annual. These are functions not segregated with approval of account, the responsibility for which is assigned to the Navy Bureau of Accounts. An examination of the most cited [illegible] Activity along in the formulation and execution of a spring Corps budget should point up the steps Corps Training takes are necessitated. A subsequent description of how a Bureau or responsibility center is processed will permit a conclusion.

Marine Corps Marching Band

Except for a relatively minor function in Headquarters Marine Corps, the Division of Information is Headquarters Marine Corps does not directly enter budget cycle [illegible] activities for the Marine Corps Band. However, operational requirements and budget [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

detail as to permit the application of dollar costs by the Marine Corps Supply Department, Personnel Department or the Fiscal Director as appropriate.[1]

At the beginning of the budget cycle, under its Director (who is also Assistant Commandant of the Marine Corps (Air) and Assistant Chief of Naval Operations, Marine Aviation), the Division of Aviation participates in the preparation and review of Navy Program Objectives. This document, based on Department of Defense budget guidance, is published to the Marine Corps and Navy bureaus, and is the basis on which annual budgets are constructed. The Division insures that Aviation's broad requirements for personnel and materiel are included therein. The budgets of all Department of the Navy activities are fundamentally based on these same published program objectives. At this point in the budget cycle the preparation of budgets effecting Marine Corps aviation becomes widely separated throughout the Marine Corps and the Navy bureaus having responsibility for furnishing support to Marine aviation.

Based on the Marine Corps program as defined in the Navy Program Objectives a detailed determination of personnel, materiel and services necessary to support that program is provided cognizant Marine Corps offices responsible for the several budgeting activities effecting aviation. Working together, staff officers and personnel experts of the headquarters arrive at an acceptable percentage of the total Marine Corps to be provided aviation. The costs of these people are then

---

[1]Statements of Members of the staff, Division of Aviation, personal interviews, November 1955

estimated and included in the Marine Corps total. Lists of equipment for active or reserve aviation forces are provided responsible offices of the headquarters for costing and inclusion in the budget. Such lists are identified to aviation by appropriate memoranda as are all military materiel and service requirements stated for budgeting purposes.

The complete Marine Corps budget proposal in dollars, after examination within the headquarters, is submitted and justified to the Navy Comptroller who makes the initial review. Reductions or changes are often required in order to come within ceilings previously indicated by the President or the Secretary of Defense. Hearings are held and interested parties are permitted to defend their submissions. After the Navy Comptroller's review, the budget proposals are returned for incorporation of revisions required at the secretarial level. This revised Marine Corps budget now becomes a part of the total Department of the Navy budget proposal.

The Secretary of Defense reviews the budget of all military departments to insure coordination, and in the same manner as the Navy Comptroller, directs action adjustments to conform to ceilings and guidelines. This review, now normally conducted concurrently with the Bureau of the Budget, results in a Department of Defense budget which then becomes part of the President's budget to be submitted to the Congress. Further review is conducted in Congressional committees and when the budget is approved appropriations are authorized in the annual appropriation act.[1]

---

[1]For a description and analysis of the defense budget process see Arthur Smithies, The Budgetary Process of the United States (New York: McGraw-Hill, 1955, Part IV)

The Director of Aviation is a member of the Commandant's Budget Advisory Group consisting of the Chief of Staff, G-1, G-2, G-3, G-4, Quartermaster General, Director of Personnel, Director of Reserve and Fiscal Director. The aviation director or members of his staff are called upon to justify, at any of the review levels mentioned above, those aspects of the Marine Corps budget which apply to Marine Aviation. When the Commandant introduces the budget annually by a statement of the Marine Corps program and a general justification of the dollar budget being submitted, a specific mention of Marine aviation is normally included. To assist the Commandant at budget hearings all branches of the Division of Aviation that provide data in support of Marine Corps budget programs submit question and answer information as required.[1]

As the Marine Corps budget moves into the execution phase the Division of Aviation still acts primarily as a requirement stating agency and in an advisory capacity to those Marine Corps offices which perform as project managers for funds appropriated. Upon Presidential approval, the Bureau of the Budget takes over as the executive agency to manage the appropriations authorized by Congress. Funds do not actually become available to the Marine Corps until a justified request for apportionment is made via the Navy Comptroller and the Department of Defense to the Bureau of Budget. Such apportionments are requested by all agencies on the basis of funds actually required and appropriated

---

[1]Division of Aviation Budget (SOP) 1, Mar 1954, Department of the Navy, Headquarters, U. S. Marine Corps, (Washington, 1954)

and form the basis for an allocation schedule which, when prepared is, in effect, a financial management plan.

Marine Corps requests for apportionments are coordinated by the Fiscal Director of the headquarters. His office develops a financial plan which in its execution assures adequate supervision of the allocation of appropriated funds to Marine Corps projects managers whose duty involves detailed management of the funds allocated. The Fiscal Director allots funds on the basis of calendar based allocation schedules to various agencies within Marine Corps Headquarters for actual execution of committments, obligations, and expenditures. Expenditures are effected within the Supply Department, both in Washington, and in the field. All activities receiving funds by allotment are governed by fiscal accounting instructions and are required to maintain records and make periodic reports of unobligated balances.

During this apportionment and execution process Marine Aviation is constantly monitoring the performance of those project managers responsible for implementing aviation programs indicated as requirements in the budget formulation process. Within the Washington headquarters liaison between aviation and these project managers is continually maintained. In the field the financial management proficiency of those aviation commanding officers who administer Marine Corps furnished operating allotments is examined by inspection through the military chain of command.

Marine Aviation is supported from within each of the four overall Marine Corps appropriations:

1. Military Personnel, Marine Corps
2. Marine Corps Troops and Facilities

3. Marine Corps Personnel, Marine Corps Reserve

4. Marine Corps Procurement[1]

Experience has indicated that from the standpoint of Marine aviation's interest only one of these appropriations is administered outside Washington. The Marine Corps active and reserve personnel funds are expended exactly as programmed at the headquarters. Similarly, obligations for purchase of new items funded by the appropriation, Marine Corps Procurement, may be authorized only at Washington. It is only the operating and maintenance allotments issued field activities from the Troops and Facilities appropriation which require management at the lower echelons of command. In Marine aviation this latter fund is not of relatively large importance due to the fact that most aviation training operations, and maintenance needs are financed from Navy sources.

In view of this, one may appreciate the importance attached to the actions of the Division of Aviation at Washington in aiding Marine Corps budget formulation and execution. The tasks consist of gathering aviation requests for people, Marine Corps equipment and funds from the field; consolidating such requests in a Marine aviation program which may be correlated with the overall Marine Corps and Navy plan; acting to insert the individual items requested in the proper appropriation estimates; justifying such estimates; and finally monitoring the financial management actions which result in implementation of the aviation program originally requested.

---

[1]Division of Aviation Budget (SOP), p.2, op.cit.

3. Service Corps Personnel, Service Corps Command

a. Service Corps Officers

Experience has indicated that from the standpoint of service stability officers only one of these alternatives is obviously suitable for duration. The Service Corps utility and reserve officers (who are commissioned mainly as required in the mobilization. Similarly, obligations the problem of the short tour of the enlisted man, Service Corps Personnel, may be considered only as temporary. In fact only the operating and maintenance elements issued from enlisted personnel from the Corps and Technical Corps personnel must remain assigned as the lower echelons of command. In Service activities this latter type is one of relatively large importance due to the fact that most service training operations, and maintenance needs are figured. Some duty such

In view of this, one may summarize the characteristics affecting the success of the Service of Supply in maintaining in existing Service Corps budget formalities and execution. The three aspects of personnel retention reserves for months, Service Corps officers and those from other fields; consideration must consist in a Service training course which may be controlled with the overall Service Corps and their other duties so insure the individual their assistance to the proper administration activities; supplying most particularly and finally coordinating all these management actions which result in individuality of the enlisted personnel replacements.

Operations of enlisted Service Corps, p.27, Command.

Bureau of Aeronautics Financial Support

The Bureau of Aeronautics in carrying out its financial and logistic responsibilities makes little differentiation between Naval aviation and Marine aviation. Both of the latter are provided identical supplies and services in all cases except where peculiarities of operations and/or missions call for special treatment. Instructions for repair and maintenance of aircraft, operation and maintenance of aeronautical shore facilities etc., are applied with equal force to both Navy and Marine air. Authority for this, and a delineation of the responsibilities involved, are contained in Navy Regulations and Bureau instructions.[1] Since the Bureau has, both by historical precedent and administrative order, these many responsibilities toward Marine aviation, it is particularly concerned with the size and composition of this force which must be supported from year to year. Navy Regulations indicates the composition and size of the Marine Corps:

> The United States Marine Corps, within the Department of the Navy, shall be so organized as to include not less than three combat divisions and three air wings, and such other land combat, aviation, and other services as may be organic therein.[2]

The exact make-up of the minimum of three air wings is determined each year by agreement between the Chief of Naval Operations and the Commandant of the Marine Corps subject to approval by the Secretary of the Navy. In practice this annual agreement is reflected in the Navy Program

---

[1] Bureau of Aeronautics Manual, op. cit., p. 5

[2] Navy Regulations, op. cit., p. 13

Bureau of Democratic Control [cont'd]

The Bureau of Democratic Control, by carrying out the financial and legislative responsibilities under Title 41-Democratization Improved Social Relations and Voting Behavior, shall be the lawful [illegible] supplies and services in all cases except those specifically [illegible] operations and/or citizens aid) for special investment. Construction [illegible] for repair and maintenance of airports, demolition and withdrawals of governmental [illegible] facilities etc., the Bureau will well serve to both Navy and Marine air. Authority for this, and a definition of the responsibilities involved, are contained in Navy Regulations and [illegible] Bureau like Bureau has, such as electrical [illegible] and administrative order, shall only responsibilities inherent to the evolution, it is particularly concerned with the size and composition of this force which must be supported from year to year. Navy Regulations indicates the composition and size of the service corps:

> The United States Marine Corps, within the Department of the Navy, shall be so organized as to include not less than three combat divisions and wings and three [illegible] and such other [illegible] as may be prescribed by [illegible].[1]

The exact make-up of the [illegible] or three air wings is determined each year by agreement between the Chief of Naval Operations and the Commandant of the Marine Corps subject to approval by the Secretary of the Navy. In practice this annual agreement is reflected in the Navy Program

---

[1] Bureau of Democratic Control, op. cit., p. 3

[2] Navy Regulations, op. cit., p. 17

Objectives document for the fiscal year involved which is used as a basis for budgeting by all Bureaus of the Navy as well as the Marine Corps. In this manner the Bureau of Aeronautics is advised annually of any organizational changes or differences in complements of aircraft to be expected in the ensuing fiscal year.

Another source of information which the Navy Bureau may use as a basis for fiscal planning is the Basic Naval Establishment Plan. This plan is essentially a detailed expansion of the Navy Program Objectives. While the budget is under preparation, the BNEP for the previous fiscal year undergoes revision and becomes the "Tentative BNEP" for the next fiscal year. After the budget is enacted into law in the form of an appropriation act the "Tentative BNEP" is further revised and becomes the BNEP for that fiscal year. This Basic Naval Establishment Plan is important because it is the basic detailed plan upon which the budget is based.

The Director of Marine Aviation in his capacity as a member of the Chief of Naval Operations' staff participates in the preparation and review of "guide lines", program objectives, and the Basic Naval Establishment Plan in particular coordination with the representatives of Naval aviation. In such preparations and reviews the logistic support requirements of Marine aviation are stated. Otherwise, the Chief Bureau of Aeronautics receives, both directly from the Commandant of the Marine Corps and from Marine Aviation units in the field, multifarious requests and statements of requirements for aeronautical equipment and services which are handled in a similar manner to those received from Naval

aviation activities, and are used as a basis for budget formulation.

Budget formulation and execution in the Bureau of Aeronautics is similar in most respects to the Marine Corps system described previously but, as far as Marine aviation is concerned, is of much broader scope and significance. As in the case of the Marine Corps, the Division of Aviation again acts in an advisory capacity and as a requirement stating operational agency in helping the Bureau to prepare and execute its budget. In addition it correlates requests for Navy support received from Marine aviation activities of the fleet and from the aeronautical shore establishment. This latter function is of particular significance to the Navy and Marine Corps. Since Marine air operates under technical management of a separate naval agency (Bureau of Aeronautics) and the administrative command of the Marine Corps, there is always the possibility of the occurance of a conflict of policies between the two services which would be detrimental to operations in the field.

Three appropriations to the Bureau of Aeronautics provide funds to support Naval and Marine aviation. These are:

Aircraft and Facilities, Navy

Research and Development, Navy

Aircraft and Related Procurement, Navy[1]

The Navy Program objectives and the Basic Naval Establishment Plan, formulated in Washington, guide the Bureau in determining estimates of

---

[1] Budget Digest Fiscal Year 1956, Department of the Navy, Office of the Comptroller, (Washington, 1955), pp 34-41

funds required in the latter two appropriations. An estimate of the Aircraft and Facilities, Navy fund, however, requires a substantial amount of information from sources in the field to use as a basis for computation because this appropriation finances the year to year operation of the Navy and Marine aeronautical establishments. Much of this information is derived from formal budgets submitted to the Bureau by Fleet commanders and air facility commanders. Marine officers in charge of Marine Corps air stations provide budgetary information in the same manner as their Navy counterparts. There are important differences, however, in the content of their estimates and in the review such budgets receive prior to acceptance by the Bureau of Aeronautics.

Because Marine air wings are formed as land based expeditionary forces certain peculiarities of equipment and operation set them apart from Navy fleet air units based at Navy air stations. As noted previously all Marine air requests for funds, equipment or services must be correlated by the Commandant of the Marine Corps (Division of Aviation) because of policy considerations.

A discussion of Marine Corps air station budgets should show to some degree the extensiveness of Bureau of Aeronautics support afforded Marine aviation.[1]

---

[1]Interviews with Bureau of Aeronautics officials and an examination of bureau budgeting directives reveal the following pattern of operation. Personal interview, Mr. A. B. Chettle, Bureau of Aeronautics, October 1955

Marine Corps air station commanders receive broad programming data from the Chief of Naval Operations with the concurrence of the Commandant of the Marine Corps. This prescribes the mission of the station and gives general guidance on prospective operations of the Aircraft, Fleet Marine Force units based thereon. Also furnished are planning data as to numbers of operating aircraft and pilot flying hours. Such information is interpreted by the station and Fleet Marine Force commands into aircraft flying hours. Aircraft overhauls are projected and scheduled into the station by the Bureau of Aeronautics, based on the Chief of Naval Operations approved level of aircraft operations. Civilian manpower requirements are determined by the local Marine commander, using workload data and past experience as a basis for requirements. Common type material requirements are computed in a like manner. It should be noted that technical aeronautical materiel needs are determined centrally by the Bureau of Aeronautics for the entire Naval and Marine aeronautical organization; these supplies are available for use by all aviation activities without charge to air station funds.

Bureau of Aeronautics sources indicate that Marine air station annual budget estimates are classified into five major categories:

1. Operating programs for routine day to day business.

2. Industrial shop equipment and plant improvement programs (capital equipment and improvements needed for overhaul of aircraft)

3. General station collateral equipment program (capital equipment for general use)

4. Major repair and minor construction projects.

5. Major construction projects (Master Station Development Plan)[1]

At the Marine Corps air station budgeting for the operating programs for routine day to day business is decentralized to the station departments or functional areas of operations and to the Aircraft, Fleet Marine Force units which operate from the station. Each station department head prepares his estimate of annual financial requirements to carry out his assigned functions. The tactical air commanders do likewise, considering the maintenance required for their organic expeditionary equipment and the expected costs of amphibious training maneuvers and operations to be conducted during the year.[2] The Fleet Marine Force unit requirements in this area are considerably different from those of Navy tactical units. The latter normally base and train from aircraft carriers. Such ships are funded for their support. But in the case of Marine aircraft units, maneuver training is done from undeveloped airfields which must be made operational and livable by the air Marines and their organic equipment. This equipment requires maintenance and replacement sometimes at a significant expense. These costs must appear in Marine air station budget for day to day operating programs.

The individual budgets of the department heads and fleet units at the air station are coordinated and consolidated into an overall station master budget covering day to day operating programs. This

---

[1]Personal interview, Mr. Clayton Jones, Bureau of Aeronautics, Station Operations Branch

[2]OPNAV INST letter 7100.5, Department of the Navy, Office of the Chief of Naval Operations, (Washington, D. C., 22 January 1954)

[illegible]

[illegible]

[illegible]

master budget is broken down into quarterly requirements and submitted by the commanding officer to the Bureau of Aeronautics and to the Commandant of the Marine Corps (Division of Aviation). The Division reviews the air station budget by comparing the estimated costs with those of other Marine air establishments and by correlating the proposed data with the overall programs of both the Marine and Navy aeronautical establishment. Periodically, the Marine air station commander and/or the Aircraft, Fleet Marine Force unit commander are required to justify their budget estimates to the Chief, Bureau of Aeronautics or to the Commandant of the Marine Corps.

The second major category of budget estimate submitted by Marine air stations, that for industrial shop equipment, is compiled by the Overhaul and Repair Department. This estimate is provided directly to the Bureau of Aeronautics. Marine air coordination is not necessary in this case because of the highly technical nature of the needs stated and due to the fact that only one of these large military aircraft overhaul plants is assigned to Marine aviation.

The third major budget area is collateral equipment. Such equipment consists of motor transport, furniture, large tools etc., required for station operation. Requirements are estimated by individual department heads and are coordinated and consolidated into an overall station plan which is submitted to the Bureau via cognizant military operational commands, including the Commandant of the Marine Corps, for further coordination review and comment. Collateral

equipment organic to Marine tactical air units is not included in this budget. Requests for additions or replacements of major items of Fleet Marine Force equipment are addressed to the Commandant of the Marine Corps. Upon consolidating and evaluating such requests from field units the Division of Aviation in Washington forwards them as a single Marine aviation requirement to the Bureau of Aeronautics for action.

Estimates for major repair and minor construction projects (the fourth major air station budget area) are prepared and submitted by the commanding offices to the Bureau of Aeronautics, via the chain of command, such as the Naval District Commandant, Commander Marine Air Bases, (or Naval Air Bases as applicable) and the Commandant of the Marine Corps. Review of estimate in this case at each level of command is desirable in view of the fact that military commands are responsible for overall coordination and determination of adequacy of plant facilities within their assigned areas from the standpoint of military readiness.[1]

The fifth major budget area of concern to Marine air stations is that covering the major construction program. It is referred to as the Shore Station Development Plan.

Instructions regarding preparation and review of such plans are issued directly by the Chief of Naval Operations.[2] These orders provide the background for development of an orderly and continuing construction

---

[1]Department of the Navy, General Order No. 19 (Washington, D. C., 20 May 1949) p. 3

[2]OPNAV INSTRUCTION 11010.2A, Department of the Navy, Office of the Chief of Naval Operations (Washington, D. C., 19 October 1954)

---

[1] Department of the Navy, "General Order No. 19" (Washington, D. C., 20 May 1940) p. 3

[2] Naval Publication 12010.3A, Department of the Navy, Office of Naval Operations (Washington, D. C., 20 October 1950)

program to permit accomplishment of the Marine air station's mission under peacetime or war conditions. Budget estimates for these major projects are initially prepared by the station, Public Works Department, based on basic planning developed by a Station Development and Planning Board. After approval by the station board and the commanding officer the plans are submitted to the Navy District Commander and associated commands for review and coordination and further submission to the Chief of Naval Operations and the Commandant of the Marine Corps. At Washington the plans and estimates are developed and consolidated into a Navy-Marine Corps-wide Shore Station Development Plan. The air station development plan is reviewed by the Navy Bureau of Yards and Docks as to engineering criteria and by the Bureau of Aeronautics as to air support operational features. Finally, these projects are included in a separate appropriation entitled "Military Construction, Navy" which is administered by the Bureau of Yards and Docks. The priority of projects included in this appropriation is determined formally by a Navy board, which includes Marine representatives. Determinations of this board are subject to the review and approbation of higher Defense Department officials, the Budget Bureau and the Congress.

At the Bureau of Aeronautics these many Marine budget requests are combined with those of Navy units in the annual request for appropriations. As in the case of the Marine Corps budget formulation process Marine Division of Aviation representatives must stand ready to

aid the Bureau in justification of its budget at all stages of review and in the apportionment process.

In the budget execution stage the Bureau authorizes to Marine air stations regular allotments of funds which are identified with the specific programs included in station budgets. The Division of Aviation monitors such authorizations to insure their adequacy. Yearly allotments are established for general station maintenance and operations costs; and for aircraft overhaul. Other station aviation programs such as industrial shop equipment, general station collateral equipment and major repairs and minor construction projects are each financed under multiple allotments or special project orders. A separate allotment or project order may be received for each purchase or job performed under these three programs.

The major construction projects, financed by the Bureau of Yards and Docks managed "Military Construction" appropriation, are usually administered by the Naval District Public Works Officer under contracts let with commercial concerns.[1]

The amount of funds to be allocated the various departments of the air station and the Marine tactical units for operations and maintenance is determined substantially in the same manner as developed during the budget process. Funds are allocated usually on a quarterly basis. The allotment for maintenance is divided into various administrative

---

[1]Personal interview, Lieutenant Colonel Elkin S. Dew, USMC, Division of Aviation, Headquarters U. S. Marine Corps, Washington, November 1955

[illegible]

areas, each area being administered by a designated department head who is responsible to the commanding officer for prudent use of the funds. Special allotments or project orders are normally given intact, for administrative purposes, to a department head. As these funds are specific in nature, the work to be performed thereunder is logically associated with an individual station department or Fleet Marine Force unit.

The preceding description of Marine air station budget activity affords a more specific outline of the form and extent of equipment and services which the Bureau of Aeronautics finances for Marine aviation. Generally, it may be stated that not only does that Bureau furnish financial, technical and logistic support equal to that provided Naval aviation but offers Marines additional services required because of the peculiarities of their combat mission; and the extent of Bureau support far exceeds that furnished Marine aviation from any other source.

Other Agency Support

Marine aviation receives support from other agencies of the Navy both directly and indirectly. No agencies of the Department of the Navy except the Bureau of Aeronautics and the Marine Corps provide funds by allotment directly for Marine aviation use. However, these other Bureaus do budget and fund for the provision of services to Marine aviation in response to requirements stated by the Chief of Naval Operations in formal program documents published annually, and in answer to individual operational material requirement requests forwarded by the Commandant of the Marine Corps.

As noted previously the Bureau of Yards and Docks is responsible for major construction work undertaken at Marine air stations. Also, this bureau exercises technical control of the substantial number of automotive vehicles organic to Marine air stations and tactical units. It provides standards and procedures relating to the repair and upkeep of such vehicles and maintains a supply system to furnish spare parts.[1]

The Bureau of Medicine and Surgery provides medical services to Marine aviation as to all other agencies of the Navy Department. Indirectly Marine aviators benefit, as do Naval airmen from this Bureau's research work in aviation medicine.

The largest contribution of the Bureau of Ships is its work in procurement of ground based electronics equipment suitable for amphibious use. Although such equipment is funded by the Marine Corps for aviation technical cognizance of its development, maintenance and repair remains with that Bureau.

In the area of atomic weapons and aviation armament it is the Bureau of Ordnance which supports Marine aviation. This bureau develops and supplies the guns, rockets and bombs used in the Navy furnished Marine aircraft and obtains from the Armed Forces Special Weapons Project and the Atomic Energy Commission that special weapons equipment required to maintain Marine aviation forces in a state of satisfactory combat readiness.

---

[1] Navy Regulations, op. cit., p. 51

[illegible]

As involved and elaborate as this dual support system may seem, Marine aviation has exhibited marked proficiency in the business of fitting it to its military requirements. Time and experience have proven its effectiveness.

CHAPTER III

MARINE AVIATION AND PROGRAM BUDGETING

The descriptions contained in the foregoing chapters indicate that the planning, programming, and budgeting of both the Navy and Marine Corps include support of Marine aviation. In view of the accentuation given the concept of "program budgeting" in recent years, it appears mention should be made as to how this dual financial and logistic support system fits into that phase of financial management.

Description of Program Budgeting

The Federal Government in recent years made a fundamental change in the basis of its budget by adopting the concept of a "performance" or "program" budget. This change grew out of a recommendation by the Commission on Organization of the Executive Branch of the Government that the whole budgetary concept of the government be changed by adoption of a budget based upon functions and programs rather than upon specific "objects of expenditure."[1] It was proposed by this method of budget presentation to reveal to reviewing authorities what is being done in an understandable plan of action with dollar costs attached. Government agencies now attempt to submit budgets based on activities or programs which they propose to undertake.[2]

---

[1]Task Force Report on Fiscal Budgeting and Accounting Activities, Appendix F, prepared for the Commission on Organization of the Executive Branch of the Government. Government Printing Office, Washington, 1949.

[2]See Mosher, Fredrick C., Program Budgeting - Theory and Practice, Public Administration Service 1954, for a dissertation on program budgeting in the military.

CHAPTER III

BUDGETING AND PROGRAM ACCOUNTING

The description contained in the foregoing chapters indicates that the planning, programming, and budgeting of both the Army and Marine Corps include support of Service activities. In view of the accentuation given the concept of "planning budgeting" in recent years, it appears sensible at this point to see how well Congress and legislative support agencies file into such areas of financial management.

Implementation of Program Budgeting

The Federal Government in recent years made a fundamental change in the basis of its budget by adopting the concept of a "performance" or "program" budget. This change-over was a recommendation by the Committee on Organization of the Executive Branch of the Government that the static budgetary concept of the government be changed by adopting a budget based upon functions and programs rather than upon specific "objects of expenditure."[1] It was proposed by this method of budget presentation to reveal an revealing relationship that is being done in an understandable plan of action with dollar costs attached. Government planners now attempt to submit budgets based on activity or program which they propose to undertake.[2]

---

[1]Task Force Report on Fiscal Budgeting and Accounting Activities, Appendix T, prepared for the Committee on Organization of the Executive Branch of the Government. Government Printing Office, Washington, 1949.

[2]Lea Brewer, Theodore C., Financial Administration - Theory and Practice, Public Administration Service, Chicago, 1950, p. 67.

This type of budget formulation is intended to be more meaningful since it shows what an organization proposes to do with the money it is requesting. Ideally the framework of the programs of an agency are related to its organizational structure and of course to the agency itself.

Obstacles to Strict Conformance

In contradiction to this concept of combining programs based on plans into a budget document, Marine aviation is found to have no individual plan, no specific and identifiable program of its own, and of course, no budget. Yet it is an agency of such size that it musters air power equivalent to that of many European nations.

If Marine aviation were to conform strictly to the performance budget concept, all of its plans and programs would logically be included in those of the overall Marine Corps. This would call for a unilateral service budget (Marine Corps) in support of Marine aviation and force the establishment of a single source of supply. The nature of services provided from Navy supply sources and those from Marine Corps logistics were described previously. Because of the technical dissimilarities in the primary missions of the Navy and Marine Corps with the consequent essential differences in types of materiel provided in supply support, a single logistic system in support of Marine aviation would not appear to offer any significant business-like advantage. A Marine supply system which stocked aircraft parts would be competing

with a naval aviation supply agency (Bureau of Aeronautics), within the Department of the Navy.

Consideration is given from time to time of reversing the proposition just described by merging all Marine supply functions with those of the Navy. The Chief of Naval Materiel expressed an opinion concerning this in 1954 when he forwarded to the Secretary of the Navy certain recommendations made by an ad hoc committee which had just finished a study of the Navy and Marine Corps supply systems. In his endorsement he indicates his acknowledgement of the fundamental military policy that command responsibility must include the logistic element of supply support. Thus commanders of both services should control their own supply lines. And he goes on to state that, "evaluation of facts supports the concept of the essentiality of separate supply systems."[1]

It appears then that Marine aviation does not now, and will not in the future, fit very neatly in this program budgeting concept. The plans, programs, and budgets of both the Navy and Marine Corps will continue to include Marine aviation because in this particular case strict adherance to the program budget concept without cutting across organizational lines would result in the formation of a logistic system which promises to be inefficient and costly.

---

[1]Chief of Naval Materiel, First Endorsement on Command-Level Committee Memorandum for the Secretary of the Navy via Office of Naval Materiel, 21 April 1954.

Courtship Ceremonies for the Ceremony of the Five Ox Offices of Naval Material, 21 April 1754.

CHAPTER IV

SUMMARY

The fact that the Marine Corps finds its aviation forces largely supported by Navy bureau funds and supplies does not seem particularly peculiar when consideration is given to the history of the development of Marine flying. Its very beginning and early growth as a part of Naval aviation engendered both a parallel system of command and a dual financial and logistic support concept which are complementary. Marine aviation commanders who derive authority and support from both the Navy and the Marine Corps have been trained to correlate their activities so as to provide proper response to the demands of both of these military services. Coordination is maintained at the top echelons of command and supply by the Division of Aviation at Headquarters, Marine Corps, which also acts as a division of the Office of the Chief of Naval Operations.

Because of this dual support system, nowhere in the budget formulation or execution process is it possible to identify a unilateral Marine aviation program which may be assigned an estimated cost of implementation. In program or performance budgeting, the programs of both the Navy and Marine Corps contain the multifarious increments of the total costs of maintaining Marine aviation. Such costs are not stated separately.

The significance of this omission may be over-emphasized when the relatively large size of the Marine aviation force is recognized,

and when consideration is given to governmental requirements that plans of action or programs be readily identifiable with budget requests. This over-emphasis is negated by an appreciation of the fact that Marine aviation's adherence to a performance budget concept would result in a change to a logistic support which would be either duplicative or militarily inefficient. It is apparent that because of a peculiarity of mission and the desirability of preventing duplication of logistic effort the dual support concept should continue to obtain.

Although it receives support from various agencies and its operations are not presented as a single program in the budget request process, Marine aviation makes considerable contribution to the formulation of supporting agency budget requests by stating requirements, and advising on programs which affect its interests. Measurements of Marine aviation's financial management performance are made within all the many program areas from which it receives support.

The system of financial and supply support which sustains Marine aviation has operated successfully for many years in war and peace, expansion and contraction. It has withstood detailed investigation as to its dollar-wise economy of operation relative to other possible systems, and its efficiency has been proven to be based on facts rather than happenstance. No further separation or merger of this dual Navy-Marine Corps system of supporting Marine aviation appears practicable. Basic issuss prevent it. A continued policy of maintaining separate but compatible supply services of a collaborative nature seems to be the best

method whereby Marine aviation may receive the most efficient and economical financial and logistic support.

BIBLIOGRAPHY

Books

Mosher, Fredrick C. Program Budgeting - Theory and Practice. Washington: Public Administration Service, 1954.

Sherrod, Robert. History of Marine Corps Aviation in World War II. Washington: The Combat Forces Press, 1952.

Smithies, Arthur. The Budgetary Process of the United States. New York: McGraw-Hill, 1955.

Public Documents

U. S. Navy Regulations, The Secretary of the Navy. Washington: Government Printing Office, 1948.

Task Force Report on Fiscal Budgeting and Accounting Activities, Appendix F. prepared for the Commission on Organization of the Executive Branch of the Government. Washington: Government Printing Office, 1949.

Unpublished Material

Smith, Edna Loftus, Captain, USMCWR, Aviation Organization in the United States Marine Corps, 1912-1945. Monograph prepared for DCNO (Air).

Budget Digest Fiscal Year 1956, Department of the Navy, Office of the Comptroller. Washington: 1955.

Bureau of Aeronautics Manual, Department of the Navy. Washington: 1950.

Division of Aviation Budget (SOP) 1 March 1954, Department of the Navy, Headquarters, U. S. Marine Corps. Washington: 1954.

Chief of Naval Materiel, First Endorsement on Command-Level Committee Memorandum for the Secretary of the Navy via Office of Navy Materiel. Washington: 21 April 1954.

Functions of the Armed Forces and the Joint Chiefs of Staff, Office of the Secretary of Defense. Washington: January 1954.

Books

Adams, Frederick C. Economic Statistics - Theory and Practice. Washington: Public Administration Service, 1951.

Barrow, Robert. History of Defense Labor Relations in World War II. The Citadel Press (Reno), 1952.

Hopkins, Arthur. The Economic Effects of the United States. New York, Holmes-Hill, 1951.

Public Documents

U. S. Civ. Mobilization. The Economy of the Navy. Washington: Government Printing Office, 1949.

Task Force Report on Civil Mobilization and Economic Mobilization. Prepared for the President in Preparation of the Executive Budget for the Government. Washington: Government Printing Office, 1949.

Monthly and Annual

Smith, John Lorens, Captain, Comdr., Logistic Operations in the United States Service Corps, 1917-1919. Monthly and annual reports for 1917-1919.

Annual Report Fiscal Year 1949. Department of the Army, Office of the Quartermaster. Washington: 1949.

Bureau of Economic Control. Conference on the City. Washington: 1941.

Division of Logistic Review (Air Force Area). Department of the Navy. Headquarters, U. S. Marine Corps. Washington: 1950.

Chief of Naval Material, First Endorsement to Combat-Level Conference Proposals for the Secretary of the Navy re Office of Chief of Naval Material. Washington: 27 April 1950.

Functions of the Naval Forces and Its Relation to Civil Office of the Secretary of Defense. Washington: January 1951.

Unpublished Material (Continued)

General Order No. 5. Department of the Navy. Washington: December 1954.

General Order No. 19. Department of the Navy. Washington: 20 May 1949.

Headquarters Marine Corps Memo 1165 AD-37-kk, 5 June 1945, Status of Aviation Section.

Memo Major General Field Harris to SecNav 8 April 1946, Serial AA213.

OPNAV INSTRUCTION 5430.2A. Organization Manual, Part I, Office of the Chief of Naval Operations, Washington: December 1954.

OPNAV INSTRUCTION 7100.5. Department of the Navy, Office of the Chief of Naval Operations. Washington: 22 January 1954.

OPNAV INSTRUCTION 11010.2A. Department of the Navy, Office of the Chief of Naval Operations. Washington: 19 October 1954.

Interviews

Statements of Members of the Staff, Division of Aviation, personal interviews, November 1955.

Mr. Clayton Jones, Bureau of Aeronautics, Personal interview, October 1955.

Mr. A. B. Chettle, Bureau of Aeronautics, Personal interview, October 1955

Lieutenant Colonel Elkin S. Dew, USMC, Division of Aviation, Headquarters U. S. Marine Corps, Washington: November 1955.